### Freeform Search

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	Database:	US Pre-Grant Publication Full-Text Database US Patents Full-Text Database US OCR Full-Text Database EPO Abstracts Database JPO Abstracts Database Derwent World Patents Index IBM Technical Disclosure Bulletins		
	Term:	L9 same solution		
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DATE:	Monday,	June 11, 2007 Purge Queries Printable Copy Create Case		
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L10	L9 same s	olution	13	L10
L9	hydrofluo	**	80	<u>L9</u>
DB=B		T: PLUR=YES; OP=OR		
L8		ΓHC or tetrahydrocannabinol or dronabinol or marinol) same (HFA or ydrofluoro\$8))	6	L8
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12	6563009	R=YES; OP=OR	1	1.2
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Day: Monday Date: 6/11/2007 Time: 00:28:52

### **Inventor Name Search**

Enter the first few letters of the Inventor's Last Name.
Additionally, enter the first few letters of the Inventor's First name.

Last Name	First Name	
Peart	Joanne	Search

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Day: Monday Date: 6/11/2007 Time: 01:12:21

### **Inventor Name Search**

Enter the first few letters of the Inventor's Last Name. Additionally, enter the first few letters of the Inventor's First name.

Last Name	First Name	
Byron	Peter	Search

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Day: Monday Date: 6/11/2007 Time: 01:12:21

### **Inventor Name Search**

Enter the **first few letters** of the Inventor's Last Name. Additionally, enter the **first few letters** of the Inventor's First name.

Last Name	First Name	
Lichtman ·	Aron	Search

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Day: Monday Date: 6/11/2007 Time: 01:12:21

### **Inventor Name Search**

Enter the first few letters of the Inventor's Last Name. Additionally, enter the first few letters of the Inventor's First name.

Last Name	First Name	
Martin	Billy	Search

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#### (FILE 'HOME' ENTERED AT 11:25:59 ON 11 JUN 2007)

	FILE	'CAPL	JS, ME	DLINE	, USP	ATFUI	L'	ENTERED	ΑT	11:26:53	ON	11	JUN	2007
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ANSWER 1 OF 3 USPATFULL on STN 1.5

TI Delta9 tetrahydrocannabinol (delta9 THC) solution metered dose inhalers and methods of use

The present invention provides therapeutic formulations for solutions of AB  $\Lambda.sup.9$ -tetrahydrocannabinol ( $\Lambda.sup.9$  THC) to be delivered by metered dose inhalers. The formulations, which use non-CFC propellants, provide a stable aerosol-deliverable source of A.sup.9 THC for the treatment of various medical conditions, such as: nausea and vomiting associated with chemotherapy-muscle spasticity; pain; anorexia associated with AIDS wasting syndrome, epilepsy;

glaucoma; bronchial asthma; and mood disorders.

ACCESSION NUMBER: 2004:326803 USPATFULL

TITLE: Delta9 tetrahydrocannabinol (delta9 THC) solution

> metered dose inhalers and methods of use Peart, Joanne, Richmond, VA, UNITED STATES Byron, Peter R., Richmond, VA, UNITED STATES Lichtman, Aron H., Richmond, VA, UNITED STATES

Martin, Billy R., Richmond, VA, UNITED STATES

NUMBER KIND DATE \_\_\_\_\_

PATENT INFORMATION: APPLICATION INFO.: RELATED APPLN. INFO.:

INVENTOR(S):

US 2004258622 A1 20041223 US 2004-759280 A1 20040120 (10)

Continuation of Ser. No. US 2001-944221, filed on 4 Sep 2001, GRANTED, Pat. No. US 6713048 Continuation-in-part of Ser. No. US 1999-273766, filed on 22 Mar 1999,

GRANTED, Pat. No. US 6509005

NUMBER DATE \_\_\_\_\_\_

PRIORITY INFORMATION:

US 1998-105850P 19981027 (60)

DOCUMENT TYPE: FILE SEGMENT:

Utility APPLICATION

LEGAL REPRESENTATIVE:

WHITHAM, CURTIS & CHRISTOFFERSON, P.C., 11491 SUNSET

HILLS ROAD, SUITE 340, RESTON, VA, 20190

NUMBER OF CLAIMS: 35

EXEMPLARY CLAIM:

CLM-01-22

NUMBER OF DRAWINGS:

8 Drawing Page(s)

LINE COUNT:

1344

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 2 OF 3 USPATFULL on STN

Δ9 Tetrahydrocannabinol (Δ9 THC) solution metered dose ΤI inhaler

The present invention provides therapeutic formulations for solutions of AB  $\Lambda.sup.9-tetrahydrocannabinol$  ( $\Lambda.sup.9$  THC) to be delivered by metered dose inhalers. The formulations, which utilize non-CFC propellants, provide a stable aerosol-deliverable source of A.sup.9 THC for the treatment of various medical conditions, such as: nausea and vomiting associated with chemotherapy; muscle spasticity; pain; anorexia associated with AIDS wasting syndrome; epilepsy; glaucoma; bronchial asthma; and mood disorders.

ACCESSION NUMBER:

2003:20014 USPATFULL

TITLE:

 $\Delta 9$  Tetrahydrocannabinol ( $\Delta 9$  THC) solution

metered dose inhaler

INVENTOR(S):

Peart, Joanne, Richmond, VA, United States Byron, Peter R., Richmond, VA, United States Lichtman, Aron H., Richmond, VA, United States Martin, Billy R., Richmond, VA, United States

PATENT ASSIGNEE(S):

Virginia Commonwealth University, Richmond, VA, United

States (U.S. corporation)

KIND NUMBER DATE \_\_\_\_\_\_

PATENT INFORMATION: US 6509005 B1 20030121 APPLICATION INFO.: US 1999-273766 19990322 19990322 (9)

NUMBER DATE

\_\_\_\_\_ PRIORITY INFORMATION: US 1998-105850P 19981027 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Jones, Dameron L. ASSISTANT EXAMINER: Wells, Lauren Q.

Whitham, Curtis & Christofferson, P.C., Rafa, Michael LEGAL REPRESENTATIVE:

J. NUMBER OF CLAIMS: 12 EXEMPLARY CLAIM: 1

2 Drawing Figure(s); 1 Drawing Page(s) NUMBER OF DRAWINGS:

LINE COUNT: 732

INVENTOR(S):

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

 $L_5$ ANSWER 3 OF 3 USPATFULL on STN

Delta9 tetrahydrocannabinol (Delta9 THC) solution metered dose inhalers TI

and methods of use

The present invention provides therapeutic formulations for solutions of

 $\Lambda.\sup.9$ -tetrahydrocannabinol ( $\Lambda.\sup.9$  THC) to be delivered by metered dose inhalers. The formulations, which use non-CFC propellants, provide a stable aerosol-deliverable source of

A.sup.9 THC for the treatment of various medical conditions, such

as: nausea and vomiting associated with chemotherapy--muscle spasticity;

pain; anorexia associated with AIDS wasting syndrome, epilepsy;

glaucoma; bronchial asthma; and mood disorders.

2002:54321 USPATFULL ACCESSION NUMBER:

Delta9 tetrahydrocannabinol (Delta9 THC) solution TITLE:

> metered dose inhalers and methods of use Peart, Joanne, Richmond, VA, UNITED STATES

Byron, Peter R., Richmond, VA, UNITED STATES Lichtman, Aron H., Richmond, VA, UNITED STATES Martin, Billy R., Richmond, VA, UNITED STATES

NUMBER KIND DATE US 2002031480 A1 20020314 US 6713048 B2 20040330 US 2001-944221 A1 20010904 (9) PATENT INFORMATION: APPLICATION INFO.:

Continuation-in-part of Ser. No. US 1999-273766, filed RELATED APPLN. INFO.:

on 22 Mar 1999, PENDING

NUMBER DATE \_\_\_\_\_

PRIORITY INFORMATION: US 1998-105850P 19981027 (60)

DOCUMENT TYPE: Utility APPLICATION FILE SEGMENT:

LEGAL REPRESENTATIVE: McGuire Woods, Tysons Corner, Suite 1800, 1750 Tysons

Boulevard, McLean, VA, 22102-4215

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: . 8 Drawing Page(s)

1289 LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

- L6 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
- TI Delta-9-tetrahydrocannabinol solution metered dose inhalers and methods of use
- AB The present invention provides therapeutic formulations for solns. of Δ9-tetrahydrocannabinol (Δ9-THC) to be delivered by metered dose inhalers. The formulations, which use non-CFC propellants, provide a stable aerosol-deliverable source of Δ9-THC for the treatment of various medical conditions, such as: nausea and vomiting associated with chemotherapy-muscle spasticity; pain; anorexia associated with AIDS wasting syndrome, epilepsy; glaucoma; bronchial asthma; and mood disorders. A pressurized metered dose inhaler contained Δ9-THC 0.13, ethanol 5, and HFA 134a 95%. The blood levels of Δ9-THC following aerosol exposure 20, 40, or 60 mg delivered increased in a dose dependent fashion and were comparable to the blood levels produced by i.v. injection of 3 and 10 mg/kg Δ9-THC. Ethanol, propanol, propylene glycol, glycerol, and polyethylene glycol.

ACCESSION NUMBER: 2002:185600 CAPLUS

DOCUMENT NUMBER: 136:236866

TITLE: Delta-9-tetrahydrocannabinol solution metered dose

inhalers and methods of use

INVENTOR(S): Peart, Joanne; Byron, Peter R.; Lichtman, Aron H.;

Martin, Billy R.

PATENT ASSIGNEE(S): Virginia Commonwealth University, USA

SOURCE: U.S. Pat. Appl. Publ., 22 pp., Cont.-in-part of U.S.

Ser. No. 273,766.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002031480	A1	20020314	US 2001-944221 ·	20010904
US 6713048	B2	20040330		
US 6509005	Bl	20030121	US 1999-273766	19990322
US 2004258622	A1	20041223	US 2004-759280	20040120
PRIORITY APPLN. INFO.:			US 1998-105850P P	19981027
			US 1999-273766 A	2 19990322
			US 2001-944221 A	1 20010904

- L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
- TI  $\Delta 9$ -tetrahydrocannabinol solution metered dose inhalers and methods of use
- AB The present invention provides therapeutic formulations for solns. of Δ9-tetrahydrocannabinol (Δ9-THC) to be delivered by metered dose inhalers. The formulations, which utilize non-CFC propellants, provide a stable aerosol-deliverable source of Δ9-THC for the treatment of various medical conditions, such as: nausea and vomiting associated with chemotherapy; muscle spasticity; pain; anorexia associated with AIDS wasting syndrome; epilepsy; glaucoma; bronchial asthma; and mood disorders. A composition was prepared containing Δ9-THC, ethanol, and HFA 134a

propellant.

ACCESSION NUMBER: 2000:290799 CAPLUS

DOCUMENT NUMBER: 132:313709

TITLE: A9-tetrahydrocannabinol solution metered dose

inhalers and methods of use

INVENTOR(S): Peart, Joanne; Byron, Peter; Lichtman, Aron; Martin,

Billy

PATENT ASSIGNEE(S): Virginia Commonwealth University, USA

SOURCE: PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent .

LANGUAGE:

English

Dravoonob.

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PAT	TENT !	NO.			KINI		DATE		7	APPL	ICAT:	ION I	. 01		D.	ATE	
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		RW:	GH, DK,	GM, ES,	KE, FI,	LS, FR,	MW, GB,	SD, GR,	SL, IE,	SZ, IT,	TZ, LU,	UG, MC, SN,	ZW, NL,	AT, PT,	BE,	CH,	•	
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	BR		AT, IE, 095	BE, SI,	CH, LT,	DE, LV, A	DK, FI,	ES, RO 2002	FR,	GB,	GR, BR 1	IT, 999-:	LI, 1509:	LU, 5	NL,	SE,		PT,
PRIO	AU IN HK	7641 2001 1042 ( APP	19 KN00: 846	385		B2		2003 2005 2006	0807 0318	] : 1	AU 2 IN 2 HK 2 US 1	000 - 2 001 - 1 002 - 3 998 - 3	2143 KN38 1039 1058	0 5 79 50P	·	1 2 2 P 1	9991 0010 0020 9981	020 401 528 027
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L6 ANSWER 4 OF 7 USPATFULL on STN

TI Metered dose inhaler

AB A medicinal aerosol product comprising a pressurized metered dose inhaler, including a canister (1) equipped with a metering valve and containing a medicinal aerosol solution formulation, and an actuator (2) comprising a nozzle block (14) defining an actuator orifice (6) leading to an expansion chamber, wherein the formulation includes a cannabinoid, a hydrofluorocarbon propellant and an optional amount of an alcohol co-solvent, and the actuator orifice (6) has a diameter of about 0.30 mm or less, and/or is laser drilled.

ACCESSION NUMBER: 2005:72028 USPATFULL TITLE: Metered dose inhaler

INVENTOR(S): Davies, Rebecca Jayne, Chippenham, UNITED KINGDOM

Ganderton, David, Chippenham, UNITED KINGDOM

ישידיערו

Lewis, David, Chippenham, UNITED KINGDOM Meakin, Brian, Chippenham, UNITED KINGDOM

PATENT ASSIGNEE(S): Vactura Limited (non-U.S. corporation)

		NUMBER	KIND	DATE	
PATENT INFORMATION: APPLICATION INFO.:	US	2005061314 2004-499288 2002-GB5903	Al Al	20050324 20041108 20021223	(10)

MITMDED

			NOMBER	DATE
PRIORITY	INFORMATION:	EP	2001-130521	20011221
		WO	2002-EP14588	20021219

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: DAVIDSON, DAVIDSON & KAPPEL, LLC, 485 SEVENTH AVENUE,

14TH FLOOR, NEW YORK, NY, 10018

NUMBER OF CLAIMS:

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS:

3 Drawing Page(s)

LINE COUNT:

717

L6 ANSWER 5 OF 7 USPATFULL on STN

ΤI Pharmaceutical compositions

ΆB The present invention relates to an improved mode of administration for cannabis and its natural and synthetic derivatives. A pharmaceutical composition suitable for sublingual aerosol or spray delivery of cannabis is provided. The formulation may be dispensed using a pump spray or the formulation may include a propellant, such as butane, 1,1,1,2-tetrafuorethane (HFC-134a) or 1,1,1,2,3,3,3-heptafluropropane (HFC-227). The term cannabis is used herein to refer to all physiologically active substances derived from the cannabis family of plants and synthetic cannabis analogues and derivatives, precursors, metabolites etc., or related substances having cannabis-like

physiological effects.

ACCESSION NUMBER:

2003:271572 USPATFULL

TITLE:

Pharmaceutical compositions

INVENTOR(S):

Ross, Calvin, Wibech, UNITED KINGDOM

	NUMBER	KIND DATE	
PATENT INFORMATION: APPLICATION INFO.:	US 2003191180 US 2003-221066	A1 20031009 A1 20030506	
	WO 2001-GB1027	20010309	)
	NUMBER	DATE	
PRIORITY INFORMATION:	GB 2000-5718	20000309	,
	GB 2001-1744 GB 2001-1743	20010123 20010123	•
DOCUMENT TYPE: FILE SEGMENT:	Utility APPLICATION		

LEGAL REPRESENTATIVE:

WOLF GREENFIELD & SACKS, PC, FEDERAL RESERVE PLAZA, 600

ATLANTIC AVENUE, BOSTON, MA, 02210-2211

NUMBER OF CLAIMS: 35 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS:

4 Drawing Page(s)

LINE COUNT: 913

CAS INDEXING IS AVAILABLE FOR THIS PATENT.